

T7 primer

TTTATAGCACTCACTATTAGG AGACGG AAG CTT Hind 3
AAG GTG CAC GGC CCA GGT GGA TCG ATC GCG AGA TGT TCG GAA
DeI TT

-28

Hind 3

BqI II

Met Asp Ser Lys Val Thr Ile Ile Cys Ile Arg Phe Leu Phe Leu Leu Leu Cys Met Leu Ile Gly Lys Ser His Thr
GCC ACC ATG GAT ACC AAA GTC ACA ATC ATA TGC ATC AGA TTT CTC TTT TGG TTT CTT TTG CTC TGC ARG CTT ATT GGG AAG TTA CAT ACG

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+1 NcoI	CHO	Sub I	CHO

+1 NcoI

+I	NCOI	10	CNO	20	Sph I	30
Glu Asp Asp Ile Ile Ala Thr Lys Asn Gly Lys Val Arg Gly Met Asn Leu Thr Val Phe Gly Gly Thr Val Thr Ala Phe Leu Gly						

GGAA GAT GAC ATC ATA ATT GCA ACA AAG AAT GCA AAA GTC ACA GGG ATG AAC TTG ACA GTT TTT GGT GGC AGG GTA ACA GCC TTT CTT GGA 90

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

ATT CCG TAT GCA CAG CCA CTT GGT AGA CTT CCA TTC AAA AAG CCA CAG TCT CTG ACC AAG TGG TCT GAT ATT TGG AAT GCC ACA AAA 180

Eco RI

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Tyr Ala Asn Ser Cys Cys Gln Asn Ile Asp Gln Ser Phe Pro Gly Phe His Gly Ser Glu Met Trp Asn Pro Asn Thr Asp Leu Ser Glu
TAT CCA AAT TCT TCC TGT CAG AAC ATA GAT CAA AGT TTT CCA GGC TTC CAT GGA TCA CAG ATG TGG AAC CCA AAC ACT GAC CTC ACT GAA 270

100	CHO No. T	110	115	100
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CHO Neo T 110

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Asp Cys Leu Tyr Leu Asn Val Trp Ile Pro Ala Pro Lys Pro Lys Asn Ala Thr Val Leu Ile Trp Ile Tyr Gly Gly Gly Phe Gln Thr
 AAC TCG TTT TAT CTA AAT CTA TGG ATT CCA GCA CCT AAA CCA AAA AAT GCC ACT GTA TTG ATA TGG ATT AAT GGT GGT TTT CAA ACT 360
 CAR N60 1 110 117 120

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Ava I

Ava I

Figure 1A

160 Leu Gly Phe Leu Ala Leu Pro Gly Asn Pro Glu Ala Pro Gly Asn Met Gly Leu Phe Asp Glu Gln Leu Ala Leu Gln Trp Val Gln Lys
 CTA GGA TTC TTA GCT TTG CCA GGA AAT CCT GAG GCT CCA GGG AAC ATG GGT TTA TTT GAT CAA CAG TTG GCT CTT CAG TGG GTT CAA AAA 540
 170
 190 Asn Ile Ala Ala Phe Gly Gly Asn Pro Lys Ser Val Thr Leu phe Gly Glu SER Ala Gly Ala Ala Ser Val Ser Leu His Leu Leu Ser
 AAT ATA GCA GCC TTT GGT GGA AAT CCT AAA AGT GTA ACT CTC TTT GGA GAA AGT GCA GGA GCT TCA GTT ACC CTG CAT TTG CTT TCT 630
 200
 220 Pro Gly Ser His Ser Leu Phe Thr Arg Ala Ile Leu Gln Ser Gly Ser Phe Asn Ala Pro Trp Ala Val Thr Ser Leu Tyr Glu Ala Arg
 COT GGA ACC CAT TCA TTG TTC ACC AGA GCC AAT CTG CAA AGT GGT TCC TTT AAT GCT CTT TGG GCG GTA ACA TCT CTT TAT GAA GCT AGG 720
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 250 CHO
 260 Asn Arg Thr Leu Asn Leu Ala Lys Leu Thr Gly Cys Ser Arg Glu Asn Glu Thr Glu Ile Ile Lys Cys Leu Arg Asn Lys Asp pro Gln
 AAC AGA ACG TTG AAC TTA GCT AAA TTG ACT GGT TCC TCT AGA CAG AAT CAG ACT GAA ATA ATC AAC TCT CTT AGA AAT AAA GAT CCC CAA 810
 280
 290 Glu Ile Leu Leu Asn Glu Ala Phe Val Val Pro Tyr Gly Thr Pro Leu Ser Val Asn Phe Gly Pro Thr Thr Val Asp Gly Asp Phe Leu Thr
 GAA ATT CTT CTG AAT GAA GCA TTT GTT GTC CCC TAT GGG ACT CCT TTG TCA GTA AAC TTT GGT CCG ACC GTC GAT GGT GAT TTT CTC ACT 900
 300
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 320 Asp Met Pro Asp Ile Leu Leu Glu Leu Gly Gln Phe Lys Lys Thr Gln Ile Leu Val Gly Val Asn Lys Asp Glu Gly Thr Trp Phe Leu
 GAC ATG CCA GAC ATA TTA CTT GAA CTT GGA CAA TTT AAA AAA ACC CAG ATT TTG GTC GGT ATT AAA GAT GAA GGG ACA TGG TTT TTA 990
 330
 CHO

Figure 1B

340 Val Tyr Gly Ala Pro Gly Phe Ser Lys Asp Asn Asn Ser Ile Ile Thr Arg Lys Glu Phe Glu Glu Gly Leu Lys Ile Phe Phe Pro Gly
360 CTC TAT GGT GCT CCT GGC TTC ACC AAA GAT AAC AAT ACT ATC ACA AAA GAA TTT CAG GAA GGT TTA AAA ATA TTT TTT CCA GGA 1080

370 Val Ser Glu Phe Gly Lys Glu Ser Ile Leu Phe His Tyr Thr Asp Trp Val Asp Asp Glu Arg Pro Glu Asn Tyr Arg Glu Ala Leu Gly
390 Dra I SspI
380

400 CTC ACT CAG TTT CGA AAG GAA TCC ATC CTT TTT CAT TAC ACA GAC TCG GTA CAT CAT CAG AGA CTT GAA AAC TAC GGT CAG GCC TTC GGT 1170

410 Asp Val Val Gly Asp Tyr Asn Phe Ile Cys Pro Ala Leu Glu Phe Thr Lys Lys Phe Ser Glu Trp Gly Asn Asn Ala Phe Phe Tyr Tyr
420 GAT GTT GTT GGG GAT TAT AAT TTC ATA TCC CTT GCC TTC GAG TTC ACC AAG AAG TTC TCA GAA TGG GGA AAT AAT GCC TTT TTC TAC TAT 1260

430 Phe Glu His Arg Ser Ser Lys Leu Pro Trp Pro Glu Trp Met Gly Val Met His Gly Tyr Glu Ile Glu Phe Val Phe Gly Leu Pro Leu
440 TTT GAA CAC CGA TCC TCC AAA CTT CCG TGG CCA GAA TGG ATG GGA GTG AAG CAT GGC TAT GAA ATT GAA TTT GTC TTT GGT TTA CTT CAG 1350

450 CHO
460 Glu Arg Arg Asp Asn Tyr Thr Lys Ala Glu Glu Ile Leu Ser Arg Ser Ile Val Lys Arg Trp Ala Asn Phe Ala Lys Tyr Gly Asn Pro
470 GAA ACA AGA GAT AAT TAC ACA AAA GCC GAG GAA ATT TTG ACT AGA TCC ATA GTG AAA CGG TGG GCA AAT TTT GCA AAA TAT GGG AAT CCA 1440

480 CHO
490 Asn Glu Thr Glu Asn Asn Ser Thr Ser Trp Pro Val Phe Lys Ser Thr Glu Glu Lys Tyr Leu Thr Thr Leu Asn Thr Glu Ser Thr Arg Ile
500 AAT GAG ACT CAG AAC AAT AGC ACA AGC TGG CTT GTC TTC AAA AGC ACT GAA CAA AAA TAT CTA ACC TTG AAT ACA GAG TCA ACA AGA ATA 1530

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Figure 1C

Met Thr Lys Leu Arg Ala Gln Gln Cys Arg Phe Thr Ser Phe Phe Pro Lys Val Leu Glu Met Thr Gly Asn Ile Asp Glu Ala Glu	520	530	540
ATG ACG AAA CTA CCG GCT CAA CAA TGT CGA TTC TGG ACA TCA TTT TTT CCA AAA GTC TTC GAA ATG ACA GCA AAT ATT GAT GAA GCA GAA			1620
	Taq I		
Trp Glu Trp Lys Ala Gly Phe His Arg Trp Asn Asn Tyr Met Met Asp Trp Lys Asn Gln Phe Asn Asp Tyr Thr Ser Lys Lys Glu Ser		560	570
TGG GAG TGG AAA GCA GCA TTC CAT CCG TGG AAC AAT TAC ATG ATG GAC TGG AAA AAT CAA TTT AAC GAT TAC ACT ACC AAG AAA GAA AGT			1710
	Ssp I		
Cys Val Gly Leu ***			
TGT GTG GGT CTC TAA TTA ATA GAT CTG TCA TGA TGA TCA TGG CAA TGG GAT CCA TAT ATA GGG CCC TATT CTTACTGTCACTAAAT			
	Ase I	Bgl II	Bcl I
			Ram HI, Eco01091, Apa I
			Spc primer

Figure 1D

10 20 30 40 50
 EDDIIATKNGKVRGMNLTVFGGTVTAFLGIPYAQPPLGRLRFKKPQSLTK
 60 70 80 90 100
 WSDIWNATKYANSCCONIDQSFPGFHGSEMWNPNTDLSEDCLYLNWVWIPAP
 110 120 130 140 150
 KPKNATVLIWIYGGGFQTGTSSLHVVDGKFLARVERVIVVSMNYRVGALGF
 160 170 180 190 200
 LALPGNPEAPGNMGLFDQQLALQWVQKNIAAFGGNPKSVTLFGESAGAAASV
 210 220 230 240 250
 SLHLLSPGSHSLFTRAILQSGSFNAPWAVTSLYEARNRTLNLAKLTGCSRE
 260 270 280 290 300
 NETEIIKCLRNKDPQEILLNEAFVVPYGTPLSVNFGPTVDGDFLTDMPDIL
 310 320 330 340 350
 LELGQFKKTQILVGVNKDEGTAFLVYGAPGFSKDNNSIITRKEFQEGCLKIF
 360 370 380 390 400
 FPGVSEFGKESILFHYTDWVDDQRPENYREALGDVVDGYNFICPALEFTKK
 410 420 430 440 450
 FSEWGNNAFFYYFEHRSSKLPWPEWMGMVHGYLEIEFVFGLEPLERRDNYTKA
 460 470 480 490 500 510
 EEILSRISIVKRWANFAKYGNPNETQNNSTSWPVFKSTEQKYLTLNTESTRI
 520 530 540 550 560
 MTKLRAQQCRFWTSFFPKVLEMTGNIDEAEWEWKAGFHRWNNYMMDWKNQF
 570
 NDYTSKKESCVGL

Figure 2

1 tactgaatgt cagtgcagtc caatttacag gctggagcag cagctgcac ctcgatttcc
 61 ccgaagtatt acatgatatt cactccttgc aaactttacc atctttgttg cagagaatcg
 121 gaaatcaata tgcatagcaa agtcacaatc atatgcatca gatttctott ttggtttctt
 181 ttgctctgca tgcattattg gaagtccatc actgaagatg acatcataat tgcacaaag
 241 aatggaaaag tcagagggat gaacttgaca gtttttggtg gcacggtaac agcctttctt
 301 ggaattccct atgcacagcc acctcttggt agacttcgat tcaaaaagcc acagtctctg
 361 accaagtggc ctgatatttg gaatgccaca aaatatgcaa attcttgctg tcagaacata
 421 gatcaaaagt ttccaggctt ccatggatca gagatgtgga acccaaacac tgacctcagt
 481 gaagactgtt tatatctaaa tgtatggatt ccagcaccta aacaaaaaaa tggcactgta
 541 ttgatatgga tttatggttg tggttttcaa actggaacat catctttaca ttttatgtat
 601 ggcaagtctt tggctcgggt tgaaagagtt attgtagtgt caatgaacta taggggtggg
 661 gccctaggat tcttagcttt gccaggaaat cctgaggctc cagggaacat gggtttattt
 721 gatcaacagt tggctcttca gtgggttcaa aaaaatatag cagccttttg tggaaatcct
 781 aaaagtgtaa ctctcttttg agaaagtga ggagcagctt cagtttagct gcatttgctt
 841 tctcttggaa gccattcatt gtaccacaga gccattctgc aaagtggatc ctttaagtct
 901 ccttgggcgg taacatctct ttatgaagct aggaacagaa cgttgaactt agctaattg
 961 actggttgct ctgagagaaa tgagactgaa ataatacagt gtcttagaaa taaagatccc
 1021 caagaaatcc tcttgaatga agcatttggt gtccctatg ggactccttt gtcagtaaac
 1081 tttggtccga cctgggatgg tgattttctc actgacatgc cagacatatt acttgaactt
 1141 ggacaattta aaaaaaccca gattttggtg ggtgttaata aagatgaagg gacagctttt
 1201 ttagtctatg gtgctctcgg cttcagcaaa gataacaata gtatcataac tagaaaagaa
 1261 tttcaggaag gttaaaaaat attttttcca ggagttagtg agtttggaag ggaatccatc
 1321 ctttttcatt acacagactg ggtagatgat cagagacctg aaaactacgg tgaggccttg
 1381 ggtgatgttg ttggggatta taatttcata tgcctcgctt tggagtccac caagaagttc
 1441 tcagaaatgg gaaataatgc cttttcttac tattttgaac accgatccct caaactccg
 1501 tggccagaat ggtatggagt gatgcattgc tatgaaattg aatttgtctt tggtttacct
 1561 ctggaaagaa gagataatta ccaaaaagcc gaggaattt tgagttagtc catagtgaag
 1621 cgttgggcaa attttgcaaa atattgggaat ccaaatgaga ctcaacaaga tagcacaagc
 1681 tggcctgtct tcaaaaagcac tgaacaaaaa tatctaacga gtaacacaaga
 1741 ataatacaga aactacgtgc tcaacaatgt cgattctgga catcattttt tccaaaagtc
 1801 ttggaatga caggaaatat tgatgaagca gaatgggagt ggaagcagg attccatcgc
 1861 tggacaactt acatgatgga ctggaaaaat caatttaacg attacactg caagaagaa
 1921 agtgtgtggy gtctctaatt aatagattta cctttatag aacatatttt cctttagatc
 1981 aaggcaaaaa tatcaggagc ttttttacac aactactaaa aaagtattta tgtagctgaa

Figure 3A

2041 acaaaaaatgc cagaaggata atattgattc ctcacatctt taacttagta ttttacctag
2101 catttcaaaa cccaatggc tagaacatgt ttaattaaat ttcacaatat aaagttctac
2161 agttaattat gtgcatatta aaacaatggc ctggttcaat ttctttcttt ccttaataaa
2221 ttttaagttt ttcccccaa aattatcagt gctctgcttt tagtcacgtg tattttcatt
2281 accactcgta aaaaggatc ttttttaaat gaattaaata ttgaaacact gtacaccata
2341 gtttacaata ttatgtttc taattaaaat aagaattgaa tgtcaatatg agatattaaa
2401 ataagcacag aaaatc

Figure 3B

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	1	10	20	30
HUMAN WILD-TYPE BChE	EDDIIITATKN	GKVRGAMLT	TV	FGGTVTAFLG
HUMAN A VARIANT BChE	-----	-----	-----	-----
HUMAN J VARIANT BChE	-----	-----	-----	-----
HUMAN K VARIANT BChE	-----	-----	-----	-----
RAT BChE	EEDVIITTKT	GRVRLSMPI	LG	GGTVTAFLG
CAT BChE	EEDIIITTKN	GKVRGAMLPV	LD	GGTVTAFLG
HORSE BChE	EEDIIITTKN	GKVRGAMLPV	LG	GGTVTAFLG

	40	50	60	70	80	90	100
HUMAN WT	IPYAQPPLGR	LRFKKQSLT	KWSDIWNATK	YANSCCQDID	QSFPGFHGSE	MWNPNTDLSE	DCLYLANVWIP
HUMAN A	-----	-----	-----	-----G	-----	-----	-----
HUMAN J	-----	-----	-----	-----	-----	-----	-----
HUMAN K	-----	-----	-----	-----	-----	-----	-----
RAT	IPYAQPPLGS	LRFKKQPLN	KWPDVYNATK	YANSCYQDID	QAFPGFGSGE	MWNPNTNLSE	DCLYLANVWIP
CAT	IPYAQPPLGR	LRFKKQPLT	KWSDIWNATK	YANSCYQDAD	QSFPGFGSGE	MWNPNTDLSE	DCLYLANVWIP
HORSE	IPYAQPPLGR	LRFKKQSLT	KWSNIWNATK	YANSCYQDID	QSFPGFLGSE	MWNPNTLSE	DCLYLANVWIP

	110	120	130	140	150	160	170
HUMAN WT	APKPKNATVL	IWIYGGGFQT	GTSSLHVYDG	KFLARVERVI	VVSMNYRVGA	LGFLALPGNP	EAPGNMGLFD
HUMAN A	-----	-----	-----	-----	-----	-----	-----
HUMAN J	-----	-----	-----	-----	-----	-----	-----
HUMAN K	-----	-----	-----	-----	-----	-----	-----
RAT	VPKPKNATVM	VWIYGGGFQT	GTSSLPVYDG	KFLTRVERVI	VVSMNYRVGA	LGFLAFPGNS	EAPGNMGLFD
CAT	TPKPKNATVM	IWIYGGGFQT	GTSSLPVYDG	KFLARVERVI	VVSMNYRVGA	LGFLALPGNP	EVPGNMGLFD
HORSE	APKPKNATVM	IWIYGGGFQT	GTSSLPVYDG	KFLARVERVI	VVSMNYRVGA	LGFLALSEN	EAPGNMGLFD

	180	190	200	210	220	230	240
HUMAN WT	QQLALQWVQR	NIAAFGGNFK	SVTLFGESAG	AASVSLHLLS	PGSHSLFTRA	ILQSGSFNAP	WAVTSLYEAR
HUMAN A	-----	-----	-----	-----	-----	-----	-----
HUMAN J	-----	-----	-----	-----	-----	-----	-----
HUMAN K	-----	-----	-----	-----	-----	-----	-----
RAT	QQLALQWVQR	NIAAFGGNPK	SVTLFGESAG	AASVSLHLLC	PQSYPLFTRA	ILESGSSNAP	WAVKHPEEAR
CAT	QQLALQWVQR	NIAAFGGNPK	SVTLFGESAG	AGSVSLHLLS	PRSQPLFTRA	ILQSGSSNAP	WAVMSLDEAK
HORSE	QQLALQWVQR	NIAAFGGNPR	SVTLFGESAG	AASVSLHLLS	PRSQPLFTRA	ILQSGSSNAP	WAVTSLYEAR

	250	260	270	280	290	300	310
HUMAN WT	NRTLNLAKFI	GCSKRENETEI	IKCLRNDKDPQ	EILLNEAFV	PGYTPLSVNF	GPTVDGDFLT	DMPDILLLELG
HUMAN A	-----	-----	-----	-----	-----	-----	-----
HUMAN J	-----	-----	-----	-----	-----	-----	-----
HUMAN K	-----	-----	-----	-----	-----	-----	-----
RAT	NRTLNLAKFI	GCSKENEKEI	ITCLRSKDPQ	EILLNEKLVL	PSDSIRSINF	GPTVDGDFLT	DMPHTLLQLG
CAT	NRTLNLAKFI	GCSKENDTEI	IKCLRNDKDPQ	EILLNELLV	PSDTLLSVNF	GPVVDGDFLT	DMPDTLLQLG
HORSE	NRTLNLAKFI	GCSRDNETEM	IKCLRNDKDPQ	EILLNEVFV	PYDTLLSVNF	GPTVDGDFLT	DMPDTLLQLG

Figure 4A

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	320	330	340	350	360	370	380
HUMAN WT	QFKKTQILVG	VNKDEGTAFL	VYGAGGFSKD	NNSIITRKEF	QEGLKIFFPG	VSEFGKESIL	FHYTDWDDQ
HUMAN A	-----	-----	-----	-----	-----	-----	-----
HUMAN J	-----	-----	-----	-----	-----	-----	-----
HUMAN K	-----	-----	-----	-----	-----	-----	-----
RAT	KVKTAQILVG	VNKDEGTAFL	VYGAGGFSKD	NDSLITRREF	QEGLMYFPG	VSSLGKEAIL	FYYVDWLGDQ
CAT	QFKKTQILVG	VNKDEGTAFL	VYGAGGFSKD	NDSIITRKEF	QEGLKIFYPG	VSEFGREAIL	FYYVDLLDDQ
HORSE	QFKRTQILVG	VNKDEGTAFL	VYGAGGFSKD	NNSIITRKEF	QEGLKIFFPR	VSEFGRESIL	FHYMDWLDDQ

	390	400	410	420	430	440	450
HUMAN WT	RPENYREALG	DVVGDFNYIC	PALEFTKKFS	EWGNNAFFYY	FEHRSSKLWP	PEWMGVMHGY	EIEFVFGLLPL
HUMAN A	-----	-----	-----	-----	-----	-----	-----
HUMAN J	-----	-----	-----	-----	-----	-----	-----
HUMAN K	-----	-----	-----	-----	-----	-----	-----
RAT	TPEVYREALD	DIIGDYNIC	PALEFTKKFA	ELEINAFFYY	FEHRSSKLWP	PEWMGVMHGY	EIEFVFGLLPL
CAT	RAEKYREALD	DVLGDYNIC	PALEFTTKFS	ELGNNAFFYY	FEHRSSQLWP	PEWMGVMHGY	EIEFVFGLLPL
HORSE	RAENYREALD	DVVGDFNYIC	PALEFTTKFS	ELGNDAFFYY	FEHRSTKLWP	PEWMGVMHGY	EIEFVFGLLPL

	460	470	480	490	500	510	520
HUMAN WT	ERRDNYTKAE	EILSRISVKKR	WANFAKYGNP	NETQNNSTSW	PVEKSTEQKY	LTINTESTRI	MTKLRAQQCR
HUMAN A	-----	-----	-----	-----	-----	-----	-----
HUMAN J	-----	-----	-----	-----	-----	-----	-----
HUMAN K	-----	-----	-----	-----	-----	-----	-----
RAT	ERRVNYTRAE	EIFSRSIMKT	WANFAKYGHP	NGTQGNSTW	PVFTSTEQKY	LTINTEKSKI	NSKLRAPOCQ
CAT	ERRVNYTRAE	EILSRISIMY	WANFAKYGNP	NGTQNNSTRW	PAFRSTDQKY	LTINAESEPKV	YTKLRAQQCR
HORSE	ERRVNYTRAE	EILSRSIMKR	WANFAKYGNP	NGTQNNSTRW	PVEKSTEQKY	LTINTESEPKV	YTKLRAQQCR

	530	540	550	560	570	574
HUMAN WT	FWTLEFFPKVL	EMTGNIDEAE	WEWKAGFHRW	NNYMDWKNQ	FNDYTSKKES	CVGL
HUMAN A	-----	-----	-----	-----	-----	---
HUMAN J	-----	-----	-----	-----	-----	---
HUMAN K	-----	-----	-----	-----	-----	---
RAT	FWRLEFFPKVL	EITGDIDERE	QEWKAGFHRW	SNYMDWKNQ	FNDYTSKKES	CTDL
CAT	FWTLEFFPKVL	EMTGNIDEAE	REWKAGFYRW	NNYMDWKNQ	FNDYTSKKES	CAGL
HORSE	FWTLEFFPKVL	ELTGNIDEAE	REWKAGFHRW	NNYMDWKNQ	FNDYTSKKES	CDSF

Figure 4B

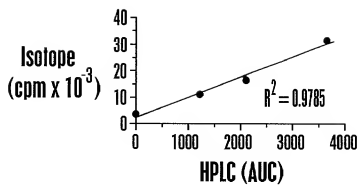


Figure 5A

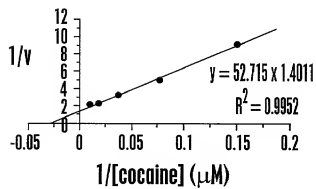


Figure 5B

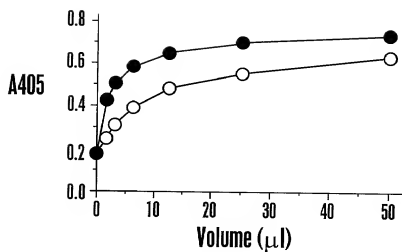


Figure 6

Figure 7

